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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/826,549

04/16/2004

Hisashi Ohtsuki

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EXAMINER

JOYCE, WILLIAM C

ART UNIT

PAPER NUMBER

3682

MAIL DATE

DELIVERY MODE

07/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/826,549	Applicant(s) OHTSUKI ET AL.	
	Examiner William C. Joyce	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4 and 6-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to the Election filed June 21, 2007 for the above identified patent application.

Election/Restrictions

1. Claims 3, 4, and 6-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on June 21, 2007.
2. Applicant's election with traverse of Figure 1-2 in the reply filed on June 21, 2007 is acknowledged. The traversal is on the ground(s) that examiner has failed to show the species having a separate classification, separate status in the art, or a different field of search. This is not found persuasive because each species either has a separate classification, different field of search, or a separate status in the art. For example, the species of figure 1 includes a seal member in the form of a cover classified in 384/489 (end cap seal) and the species of figures 3-4 have a seal member in the form of a lip seal classified in 384/484. In a second example, the seal member of figure 2 is configured to protect the end surface of the caulked portion and the seal member of figures 3-4 fail to protect the end surface of the caulked portion, and therefore the species have a separate subject of inventive effort and a separate status in the art.

The requirement is still deemed proper and is therefore made FINAL.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Japan. It is noted, however, that applicant has not filed a certified copy of the Japanese applications as required by 35 U.S.C. 119(b).

Drawings

4. Figures 8-10 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rutter et al. (USP 6,682,221) in view of Toda et al. (USP 6,672,769) and Hajzler (USP 5,431,413).

Rutter et al. discloses a vehicle wheel bearing comprising: an inner member (3), an inner ring (5) fitted on the inner member and formed with an inner raceway surface at an outer circumferential surface; an outer member (2); sealing devices for sealing annular spaces between the outer and inner members; said inner ring is secured to the wheel hub in a non-axially movable fashion relative to the wheel hub by a caulked portion (4) formed by plastically deforming a radially outward end of the inner member, a sealing device on an inboard side of the sealing devices comprises a first sealing plate (9) arranged on the inner ring and a second sealing plate (25) arranged on the outer member opposite to the first sealing plate; said first sealing plate has a radially extending portion (15) arranged at an inboard side of the bearing; an elastomeric material (29) bonded on the radially extending portion of the first sealing plate, said elastomeric material includes an encoder (8) having North and South poles.

Rutter et al. only illustrates a portion of the hub and does not teach, for example, two rows of rolling elements. However, the overall structure of the claimed vehicle hub was known in the art. For example, the prior art to Toda et al. teaches the basic structure of the claimed vehicle hub. Specifically, Toda et al. illustrates an inner member (14) including a wheel hub integrally formed with a wheel mounting flange (13) at one end, an inner raceway surface at an outer circumferential surface of said inner member and a stepped portion, of small diameter, axially extending from the inner

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raceway surfaces; an inner ring (15) fitted on the stepped portion and formed with an another inner raceway surface at an outer circumferential surface; an outer member (16) integrally formed with a body mounting at its periphery; double row outer raceway surfaces at an inner circumferential surface of said outer member opposite to the inner raceway surfaces; double row rolling elements (17) arranged between the outer and inner members; sealing devices for sealing annular spaces between the outer and inner members; said inner ring is secured to the wheel hub in a non-axially movable fashion relative to the wheel hub by a caulked portion (14a) formed by plastically deforming a radially outward end of the stepped portion, of small diameter, of the wheel hub; a sealing device on an inboard side of the sealing devices comprises a first sealing plate arranged on the inner ring and a second sealing plate arranged on the outer member opposite to the first sealing plate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the seal arrangement of Rutter et al. in the vehicle hub of Toda et al., motivation being to provide a reliable bearing arrangement for a vehicle hub.

Rutter et al. does not teach the elastomeric material bonded on the radially extending portion of the first sealing plate having magnetic substance powder, however it was known in the art to form an elastomeric seal member with a magnetic powder to form an integral encoder. For example, Figure 6 to Hajzler teaches a hub having a seal plate (2), the seal plate having an elastomeric seals (33,34), wherein the elastomeric material includes a magnetic material to form an integral encoder (4).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the first seal plate of Rutter et al. with an elastomeric material forming both a seal member and an encoder, motivation being to reduce the size of the device and reduce the number of components in forming the device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (571) 272-7107. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William C. Joyce 7/9/07